

WHAT IS CLAIMED IS:

1. A missile launcher for accepting a canisterized missile, which missile canister defines a missile launch end and a missile exhaust end, for, prior to missile launch, holding said missile canister in a generally vertical launch position below a deck, said missile launcher comprising:
- at least one elongated exhaust gas chimney;
- a support structure defining a generally axial cavity defining a missile launch end and a missile exhaust end, said cavity of said support structure having length and cross-sectional dimensions sufficient to accommodate said missile canister, said at least one exhaust chimney lying along the exterior of said support structure and extending, parallel with said axis of said cavity, from near said missile launch end to near said missile exhaust end;
- a missile exhaust plenum attached near said missile exhaust end of said support structure, said missile exhaust plenum being coupled to said at least one exhaust chimney near said missile exhaust end of said support structure, said missile exhaust plenum further including attachment means for attachment to said missile exhaust end of said missile canister, for routing missile exhaust gas from said missile exhaust end of said support structure to said at least one chimney, for

causing missile exhaust gas to vent from said
at least one chimney near said missile launch
end of said support structure; and

35 a door structure attached to said
missile launch end of said missile launch
structure, for, when closed, protecting at
least said support structure, said at least one
chimney, and any missile canister accommodated
40 within said cavity, and for, when open,
providing clearance for launch of said missile,
and for venting of said exhaust gas from said
at least one chimney.

2. A missile launcher according to
claim 1, wherein said cavity has a rectangular
cross-section.

3. A missile launcher according to
claim 2, wherein said rectangular cavity has a
square cross-section.

4. A missile launcher according to
claim 3, wherein said canisterized missile is a
Mk 25 canisterized missile.

5. A missile launcher according to
claim 1, wherein said support structure is a
lattice.

6. A missile launcher according to
claim 1, wherein said at least one exhaust
chimney is two exhaust chimneys.

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7. An array of missile launchers,
each of said missile launchers of said array
being dimensioned for accepting a canisterized
missile, which missile canister defines a
5 missile launch end and a missile exhaust end,
each of said missile launchers being for, prior
to missile launch, holding said missile
canister in a generally vertical launch
position below a deck, each of said missile
10 launchers comprising:
at least one elongated exhaust gas
chimney;
a support structure defining a
generally axial cavity defining a missile
15 launch end and a missile exhaust end, said
cavity of said support structure having length
and cross-sectional dimensions sufficient to
accommodate said missile canister, said at
least one exhaust chimney lying adjacent the
20 exterior of said support structure and
extending, parallel with said axis of said
cavity, from near said missile launch end to
near said missile exhaust end;
a missile exhaust plenum attached to
25 said support structure near said missile
exhaust end of said support structure, said
missile exhaust plenum being coupled to said at
least one exhaust chimney near said missile
exhaust end of said support structure, said
30 missile exhaust plenum further including
attachment means for attachment to said missile

exhaust end of said missile canister, for
routing missile exhaust gas from said missile
exhaust end of said support structure to said
35 at least one chimney, for causing missile
exhaust gas to vent from said at least one
chimney near said missile launch end of said
support structure;

a door structure attached to said
40 missile launch end of said missile launch
structure, for, when closed, protecting at
least said support structure, said at least one
chimney, and any missile canister accommodated
within said cavity, and for, when open,
45 allowing egress of said missile and venting of
said exhaust gas from said at least one exhaust
chimney; and said array further comprising

attachment means coupled to each of
said missile launchers of said array, for
50 attaching said missile launchers to each other
to form said array, and for attaching said
array to an underlying structure; and

a canisterized missile located within
each of said cavities.

8. A missile launcher for accepting
a missile canister, which missile canister
defines a missile launch end and a missile
exhaust end, for, prior to missile launch,
5 holding said missile canister in a generally
vertical launch position below a deck, said
missile launcher comprising:

at least one elongated exhaust gas

chimney;

10 a lattice support structure defining
a generally axial cavity defining a missile
launch end and a missile exhaust end, said
cavity of said lattice support structure having
length and cross-sectional dimensions
15 sufficient to accommodate said missile
canister, said at least one exhaust chimney
lying adjacent the exterior of said support
structure and extending from near said missile
launch end to near said missile exhaust end of
20 said support structure;

 a missile exhaust plenum attached
near said missile exhaust end of said support
structure, said missile exhaust plenum being
coupled to said at least one exhaust chimney
25 near said missile exhaust end of said support
structure, said missile exhaust plenum further
including attachment means for attachment to
said missile exhaust end of said missile
canister, for routing missile exhaust gas from
30 said missile exhaust end of said support
structure to said at least one chimney, for
thereby causing missile exhaust gas to vent
from said at least one chimney near said
missile launch end of said support structure;
35 and

 a door structure attached to said
missile launch end of said missile launch
structure, for, when closed, protecting at
least said lattice support structure, said at
40 least one chimney, and any missile canister

accommodated within said cavity, and for, when
open, providing clearance for launch of that
missile accommodated within a canister within
said cavity, and for allowing egress of said
45 exhaust gas from said at least one chimney.

9. A missile launcher according to
claim 8, wherein the cross-section of said
cavity is generally rectangular in cross-
section.

10. A missile launcher according to
claim 9, wherein said cavity is generally
square in cross-section.

11. A missile launcher according to
claim 10, wherein a missile canister lies
within said cavity.

12. A missile launcher according to
claim 11, wherein said missile canister is a Mk
25 missile canister.

13. A missile launcher according to
claim 8, wherein said lattice support structure
further comprises attachment means located near
said missile launch end of said support
5 structure, for attaching said support structure
to one of a deck and an adjacent one of said
missile launchers.

14. A missile launcher according to

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claim 8, wherein said missile launcher support
structure further comprises attachment means
lying along the exterior of said support
5 structure, for aiding in attachment of an
additional, like missile launcher, to thereby
form a missile launcher array.

15. A missile launcher according to
claim 8, wherein said at least one exhaust
chimney comprises two mutually parallel exhaust
chimneys of substantially equal length.

16. An array of missile launchers
for accommodating and protecting a plurality of
Mk 25 missile canisters, each of which missile
canisters may include one or more missiles, and
5 each of which missile canisters defines a
missile launch end and a missile exhaust end,
for, in use, accommodating said missile
canisters in a generally vertical launch
position below a deck, said array of missile
10 launchers including a battery including a
plurality of individual missile launchers, each
of said individual missile launchers including:
at least one elongated exhaust gas
chimney;

15 a lattice support structure defining
a generally axial cavity defining a missile
launch end and a missile exhaust end, said
cavity of said lattice support structure having
length and cross-sectional dimensions
20 sufficient to accommodate one of said missile

canisters, said at least one exhaust chimney
being adjacent the exterior of said support
structure, and extending from near said missile
launch end to near said missile exhaust end of
25 said support structure;

a missile exhaust plenum attached to
said support structure near said missile
exhaust end of said support structure, said
missile exhaust plenum being coupled to said at
30 least one exhaust chimney near said missile
exhaust end of said support structure, said
missile exhaust plenum further including
attachment means for attachment to said missile
exhaust end of said missile canister, for
35 routing missile exhaust gas from said missile
exhaust end of said support structure to said
at least one chimney, for causing missile
exhaust gas to vent from said at least one
chimney near said missile launch end of said
40 support structure; and

a door structure attached to said
missile launch end of said missile launch
structure, for, when closed, protecting at
least said support structure, said at least one
45 chimney, and any missile canister accommodated
within said cavity, and for, when open,
allowing egress of said missile from said
missile canister and said exhaust gas from said
at least one chimney.

17. An array of missile launchers
according to claim 16, further comprising a

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missile canister accommodated within each individual missile launcher of said array.

18. An array of missile launchers according to claim 16, wherein said axial cavity is square, and is dimensioned to accommodate Mk 25 missile canisters.

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